

§1
Claim 83 (Amended) Method for electronically controlled enzymatic reaction at an addressable location, comprising the steps of:

- providing an electronically addressable location comprising an electrode;
- contacting a substrate with said location;
- placing said location at an opposite charge to said substrate, thereby concentrating said substrate on said location;
- attaching said substrate to said location;
- contacting an enzyme with said location; and
- [placing said location at an opposite charge to said enzyme, thereby concentrating said enzyme on said location; and]

allowing said enzyme to react with said substrate on said location.

§2
Claim 85 (Amended) The method of claim 83, wherein said enzyme comprises a restriction enzyme, a ligase, a proteinase, a glycosidase, a DNA polymerase, a RNA polymerase, or a phosphorylase.

Please add the following new claims:

§3
--95. The method for electronically controlled enzymatic reaction of claim 83 further including the step of placing said location at an opposite charge to said enzyme, thereby concentrating said enzyme on said location.

96. The method for electronically controlled enzymatic reaction of claim 83 wherein the substrate is a target molecule.

97. The method for electronically controlled enzymatic reaction of claim 83 further including the step, after the second contacting step, of placing said location at a similar charge to said substrate.

98. The method for electronically controlled enzymatic reaction of claim 97 wherein placing said location at a similar charge to said substrate serves to remove at least some of said substrate from said addressable location.

99. The method for electronically controlled enzymatic reaction of claim 83 wherein the addressable location includes a first sequence that is complementary to a first portion of the substrate, further comprising the steps of:

contacting a second sequence, the second sequence being complementary to a second portion of the substrate, with the substrate at said location, the second sequence being capable of being ligated with the first sequence,

enzymatically ligating the first sequence with the second sequence, and

placing said location at similar charge to said substrate to remove said substrate from the ligated first sequence and second sequence.

33 100. The method for electronically controlled enzymatic reaction of claim 99 wherein the steps are repeated for amplification.

101. The method for electronically controlled enzymatic reaction of claim 100 wherein the amplification is of the substrate.

102. The method for electronically controlled enzymatic reaction of claim 99 wherein the substrate is a target.

103. The method for electronically controlled enzymatic reaction of claim 102 wherein the method constitutes an electronic ligation chain reaction procedure.

104. The method for electronically controlled enzymatic reaction of claim 99 further including the step of placing said location at an opposite charge to said enzyme, thereby concentrating said enzyme on said location.

105. The method for electronically controlled enzymatic reaction of claim 104 wherein the steps are repeated for amplification of the substrate.

106. The method for electronically controlled enzymatic reaction of claim 105 wherein the substrate is a target.

B3
107. The method for electronically controlled enzymatic reaction of claim 99 wherein the second sequence is labeled.--
